(131

A

REPLY

TO

Mr. *JESSOP*'s REPORT

ON THE

SUBJECT

OF THE

MILLS and LANDS

BELONGING TO THE

RIGHT HONOURABLE

LORD *FOLEY*.

A

REPLY, &c.

HAVING carefully perufed Mr. *Jeffop*'s Report to Lord FOLEY, concerning the effect of the propofed Canal, upon the property of his Lordfhip, or any other perfon through whofe lands it might pafs, the following obfervations naturally fuggefted themfelves, and may ferve in a great meafure as an Anfwer to Mr. *Jeffop*'s Remarks.

A propofal was made by the promoters of the intended Canal to *Worcefter*, for an interview to take place between Mr. *Nickalls*, their Engineer, and fome able man to be chofen by the mill and land owners, who were likely to be affected by that Canal; and not without fome furprize it was noticed, that Mr. *Jeffop*, the Engineer of the Proprietors of the *Staffordfhire Canal*, was the perfon named to meet Mr. *Nicholls*, at *Hagley*, to fettle (as was then imagined) the proper claufes to be inferted in the intended Bill; which clauſes were to fecure the property of Lord FOLEY, and every other perfon from injury. But it foon appeared that Mr. *Jeffop* was brought thither for the purpofe of raifing difficulties, rather than obviating them; and indeed nothing lefs could be expected, when it was known by whom he was employed.

Whether Mr. *Jeffop* was conſcious that his appointment by the Agents of the *Staffordfhire Canal*, would throw fufpicion on his Report, is uncertain; but it is likely he thought fo, when he ftates therein, that he met at *Hagley* by the appointment of the *Worcefter Committee*, and he fo words his declaration as to make it appear fo; whereas nothing could be farther from the intention of that Committee

mittee (if they wiſhed to find candour and plain-dealing) than to meet the perſon who was profeſſionally employed by the *Staffordſhire* and *Worceſterſhire Canal* Company, as he muſt ſurely be a very improper perſon to view the line of the propoſed Canal, and to make a Report to Lord FOLEY, and the mill and land owners who might think themſelves likely to be affected by it. It certainly was incumbent on Mr. *Nickalls* to anſwer ſuch queſtions only as were to to the purpoſe of the meeting; when that was effected, it was very immaterial to them whether the Canal was ſupplied with water at all, or from whence the reſources aroſe which were to form that ſupply, or whether it anſwered to the promoters of it in point of profit, or even to the Public; ſince that Public would only uſe it, in caſe they found it their intereſt ſo to do. Such interrogatories were more properly to be expected at the bar of the Houſe of Commons, if any ſuch were neceſſary; and not from the known ſervant of the oppoſers of this Canal, who attended under the name of Lord FOLEY's Agent. That, from him, ſuch an enquiry was equally *indelicate* and *improper*, common decency might have ſuggeſted. Had he confined himſelf to the object of the meeting, he certainly might have *expected*, and *did* receive, ſuch anſwers as would have ſatisfied liberal men, who had no other view than to ſecure their property from injury, and who came for the ſole purpoſe of framing the clauſes which were to reſtrain the *Proprietors of the Canal from taking any other water but what the mills could not uſe, viz.* their WASTE WATER. No mill or land owner could poſſibly be injured by this, and no reaſonable man could refuſe complying with ſo fair a requiſition.

Had Mr. *Nickalls* received ſuch anſwers on a like buſineſs as he gave to Mr. *Jeſſop*, they would have been ſatisfactory (though Mr. *Jeſſop* declares "they were not ſo to him)." What other information could be deſired, than a declaration that "we ſhall do you "no injury, and are willing to be reſtrained from doing it by ſuch "clauſes as we are now met to prepare." He ſhould therefore have confined his report ſolely to this one point, or ſhewn that he had offered at the meeting ſome better means for ſecuring Lord FOLEY's intereſt, which had been negatived by the *Worceſter* Committee.

In anſwer to the 5th paragraph of the Report, we may retort, in his own words, that general aſſertions may ſatisfy "the multitude;" and add, that his general aſſertion will neither ſatisfy the multitude, nor the diſcerning or diſintereſted mind, when the following facts are proved, *i. e.* the *Old Mill Brook*, *Moorhall Brook*, and *Shut Mill Streams*, (beſides much running over, that could not be meaſured at the latter) produce in floods more than ſixty times the average ſummer ſupply. We likewiſe advance the following as corroborating facts, which will diſprove his learned aſſertion, and ſhew that his opinion is merely hypothetical. At *Weybridge* two new tumbling bays or wears have lately been erected, one of twenty-

ſix,

ſix, the other of ten feet wide. The quantity of water that paſſes over them, at nearly ſeven inches deep, will amount to upwards of four millions of cubic feet, or 115,247 tons in twelve hours, which ſo nearly agrees with the contents of the ſeveral waters that paſs down to *Bellbroughton*, (and which Mr. *Nickalls* meaſured) as to prove the great diſparity between theſe ſtreams in ſummer and winter. One more indiſputable proof is, that as each mill has flood-gates or tumbling bays, the reſpective proprietors would certainly not be at ſo heavy an expence if it was not to ſave a greater—that is, their mills, from being blown up, or much damaged by floods. His hypotheſis in the former part of paragraph 6, we ſhall not anſwer, becauſe facts only are to be attended to, and not whimſical aſſertions. But it is worth notice, that he ranks *ſtone* amongſt thoſe ſoils which abſorb rain and floods. This is ſurely new, and he may well call it a " ſingular circumſtance." For proof, however, of his error in this point, there is ſcarcely a child reſident about *Bromſgrove* but could have told him what torrents burſt from the hills after ſnow, or heavy ſhowers of rain, inſtead of aſſerting that the earth imbibed it. The deep gullies on the ſides of the hills, and even on the highways, are further proofs, of which his own eyes might have convinced him, had he not rather inclined to the *wiſhes of his employers* than matter of fact. But what ſhall be ſaid to his aſſertion, equally falſe and bold, where he ventures to tell us, that ſome of the mills generally keep and make uſe of all the floods water which comes to them; when the fact is clear and certain, that many of the mills cannot apply to their wheels One Fiftieth Part, nor can any from their conſtruction uſe One Twentieth Part of it, and there is not a pond for ſixteen mills that is equal to two acres; and ſuppoſing the water in the largeſt pond was worked or drawn down two feet below its full height, the floods that commonly happen at *Shut's Mill* only, would refill it again nearly in an hour; and ſuppoſing the ponds full (and certainly every one will be ſo before any flood can reach them) then whether the pond be great or ſmall is immaterial; for, let the ſize be what it may, when it is full, one ſingle pint will ſurcharge it; and whatever the flood produces, more than the mill requires or the pond holds, runs waſte; but a little lower we find an unguarded confeſſion, that there is *ſometimes waſte water*. Now, this waſte water is all we aſk for. If this did not happen there would be leſs occaſion for tumbling bays, and more for the increaſe of their mill-ponds, a plain proof that the common ſtream is often more than is neceſſary, and that floods are dangerous, for which the bays are a remedy. " But, though," ſays he, " ſome of the mill-ponds do not contain the floods, they " are ſtill uſed for the beneficial purpoſe of watering the meadows." To this we anſwer, No land is watered half the year, and every often it rains or ſnows a conſiderable time before a flood happens; and was the next flood to be applied to the lands it would be very injurious. Therefore thoſe floods which happen

when the land cannot receive them, nor the mills uſe them, muſt paſs as uſeleſs water; and there are many in a year.

If Mr. *Jeſſop* is ſo bad an huſbandman as to believe what he has advanced, he muſt be an utter ſtranger to the management of land; and in this caſe a Farmer's Report to Lord FOLEY would have been better than that of ſuch an Engineer.

No further notice need be taken of that part of his Report, where he ſays, " Their winter and ſummer Produce do not much " differ," it being fully anſwered before, and the contrary proved by an actual meaſurement of the ſtreams, as well as by his own confeſſion. Very little attention need either be paid to his ſuppoſitions in the 8th paragraph, becauſe they are confuted by the facts mentioned in reply to the 5th. Let him prove his hypotheſis to be founded on even *rational*, before we admit them to be on *philoſophical* principles.

In the 9th paragraph he makes *Bromſgrove* water the leaſt, though in reality it is by much the largeſt; and the *Churchill* ſtream, he ſays, is nearly as large as that of *Belbroughton*; but he is ſo very wrong, that the mind diſpoſed to judge from facts only, muſt deny all credit to the whole. The true meaſurement of theſe ſtreams, which is ſo very different from the quantity ſtated by Mr. *Jeſſop*, will appear in evidence, for which it is reſerved; and is ſo very ſtrong, that it will expoſe *the diſingenuous conduct* of the party who has advanced a falſe admeaſurement, to anſwer the views of an intereſted oppoſition, and at the hazard of his own reputation.

Mr. *Jeſſop* then proceeds in " ſuppoſing the Canal to coſt " 100,000l. &c. for which they muſt carry, &c." but all theſe ſuppoſitions are far wide of the buſineſs: We ſhall therefore not follow him where he thinks proper to become the advocate of the *Staffordſhire Canal Company*, by entering into a long detail of matters foreign to the purpoſe for which he was employed, at leaſt ſo far as relates to Lord FOLEY. He complains of want of inforation concerning the locks; but very unjuſtly; for Mr. *Nickalls* certainly did inform him what he thought no prudent man could go beyond; that is, " till the locks are ſet out," ſaid he, " no " one can ſay what will be the preciſe riſe, becauſe the local cir- " cumſtances require, in various places, different heights."

Some attention, however, is due to that paſſage where he conſiders one quarter of an inch per day a proper allowance for exhalation and ſoakage; he makes it a loſs of about 74,000 cubic feet, or twenty-two locks full of water. Here his " aſſumption," nay, indeed his *preſumption*, is ſo greatly unparalled, that we cannot help quoting Mr. *Smeaton's* ſentiments on this head, who, in his report upon the junction of the *Forth* and *Clyde*, ſays,

" In

" In regard to exhalations, I have obſerved that ponds, canals, " or other ſtagnant waters of a competent depth, that had no " ſprings, but yet were water-tight, in the greateſt extreme of the " laſt dry ſummers, never loſt above ten inches before they were " repleniſhed by caſual rains. Now, I propoſe that every part of " the Canal ſhall be dug one foot deeper than the draught of water " by the boats; which will not only give a ſufficient freedom to " their motion, but alſo, by this means, the Canal will contain " within itſelf a reſervoir or magazine for ſupplying the exhala- " tion."

And he further ſays, " The ſoakage is a matter that it is impoſ- " ſible to make any proper eſtimate of, as it depends upon circum- " ſtances that cannot juſtly be allowed for; and though in ſandy " or gravelly ground it will be conſiderable, yet experience ſhews, " that in a moderate ſpace of time theſe ſoils, when fully ſaturated, " and wrecked up with the ſediment of the water, become as tight " as other ſoils; and as in the courſe of the Canal many ſprings " muſt be expected to be cut, which will afford a ſupply of water, " it is probable that the loſs by ſoakage, after a year or two, will " be next to nothing. It is to be obſerved on the article of ſoakage, " that in ſoils ſubject thereto, thoſe parts of the Canal will be filled " in rainy times, and kept ſupplied with muddy waters; ſo that it " is to be reckoned upon, that all the moſt conſiderable leakage will " be ſtopped before the Canal is open for uſe."

Mr. *Smeaton*, in another place, allowing for exhalation only, is exceeded by Mr. *Jeſſop* as two and one-half to one, ſuppoſing we allow for the whole length of the Canal. But as it is indiſputable that an ample ſupply will happen on all parts below the ſummit, we ſhall therefore conſider the *ratio* for the ſummit only; and here his aſſumption or aſſertion is twenty-five times greater than Mr. *Smeaton's*. Let it be obſerved in this place, that if Parliament grant the power of taking water from the *Salwarp* for twenty-four hours on *Sundays*, there will remain, after filling all the mill-ponds, including the additional water that comes in a little below *Bromſgrove*, as much as will amount to double the average ſummer ſupply, which affords a very ample quantity for watering the meadows. *Belbroughton* ſtreams may be taken eighteen hours on *Sundays*, and all the floods water when it amounts to double the ſummer ſupply; proviſion being made for an exception to theſe ſpecific times, when the lands of Lord FOLEY are to be watered.

And now Mr. *Jeſſop* proceeds very curiouſly to eſtimate the loſs it will be to a mill, reduced one-eighth in its power; and he advances ſome ſingular arguments to prove that it amounts to *one-half* of the profits of the mill; but this reaſoning plainly diſcovers him to be as bad an Accountant as an Engineer; for the expences of every manufactory ſhould be in proportion to the work done: And as no water is to be taken but that which would otherwiſe run

run waſte, there can be no power taken away from the mill; conſequently no decreaſe of its profit. But as the reſervoirs which are intended to be made will be capacious enough to retain all the floods and *Sundays* water which the mills do not uſe, it muſt often happen, that the Proprietors of the Canal may afford them a ſupply from their reſervoirs without injury to themſelves: And this ſupply being granted at a time when the mills and lands are moſt diſtreſſed, ſuch an aid muſt be doubly valuable to them at that time.—Thence it will follow, that, inſtead of reducing the value of mills or land, they will be much benefited; for if one-eighth only be added to the power of the mills, it will encreaſe their value or profit by *one-half*, according to Mr. *Jeſſop's* calculation; ſo that his own arguments will make againſt him, and the land will obtain equal benefit from the like cauſe.

To all theſe advantages, we ſhould not forget the very great ſaving to each work from water-carriage for their raw and finiſhed commodities: Coals will be one-third cheaper in that neighbourhood, which muſt greatly increaſe the value of iron works or forges; and manure paſſing tonnage free, will add more to the value of the land than the water, even if it was to be diverted, which is not the caſe; ſo that all points conſidered, the value of mills and lands will at leaſt be raiſed in a degree beyond what the proprietors appear willing to deſerve, from the inconſiderate oppoſition they give to their own intereſt.

Some apology ought to be made for having ſaid ſo much to confute the reaſoning (if reaſoning it may be called) of one who freely acknowledges "that his calculations are grounded on *data* "that are very uncertain, and obſervations that are incorrect; "and that he might find it difficult to prove what he has aſſerted."

After ſuch a *weak* confeſſion for the intereſt of his cauſe, though a very true one in point of fact, little regard or credit can be given to any of his concluſions, which muſt confeſſedly be drawn from the ſame premiſſes, when all he has ſaid as an Engineer is allowed by *himſelf* to be ill-grounded and fallacious: And we muſt not forget, that although he was employed to examine and ſecure the intereſt of Lord FOLEY only, he becomes the Advocate of the *Staffordſhire Canal*, and endeavours to create prejudices from cauſes foreign to the matter before him.

What can be a ſtronger inſtance than his ſpeaking of delays from locks and tunnels, with his ſtatement about tranſhipping, of which he ſeems intirely ignorant. To this add his Account of the Hoſpital Lands at *Old Swinford*, through a part of which the Canal is intended to paſs, and to which the tenants, who moſtly hold under long leaſes, are every one conſenting; and ſurely they would not have given

given their conſents, or ſigned Petitions in favour of the Bill, if they had thought the new-intended Canal would have prejudiced their eſtates, through which it paſſes. But it is moſt certain that their eſtates will be benefitted. Who, then, has a right to complain? Even the *Advocate of the Staffordſhire Canal* comes forward with an ill grace, and the *Engineer* with a much worſe. We ſhall therefore leave him to his own reflections, and the judgment of a diſcerning Public!

ANSWER

TO

Mr. *JESSOP*'s Report

TO

LORD *FOLEY*.